



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2017-0092, FRL-9968-97-Region 9]

Approval and Promulgation of Air Quality Implementation Plans; Arizona; Regional Haze State and Federal Implementation Plans

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving a source-specific revision to the Arizona state implementation plan (SIP) that provides an alternative to Best Available Retrofit Technology (BART) for the Coronado Generating Station (“Coronado”), owned and operated by the Salt River Project Agricultural Improvement and Power District (SRP). The EPA has determined that the BART alternative for Coronado would provide greater reasonable progress toward natural visibility conditions than BART, based on the criteria established in the EPA’s Regional Haze Rule. In conjunction with this approval, we are withdrawing those portions of the federal implementation plan (FIP) that address BART for Coronado. We are also codifying the removal of those portions of the Arizona SIP that have either been superseded by this approval of the SIP revision for Coronado or by previously-approved revisions to the Arizona SIP.

DATES: This rule is effective **[Insert date 30 days after the date of publication in the Federal Register]**.

ADDRESSES: The EPA has established Docket ID No. EPA-R09-OAR-2017-0092 for this action. All documents in the docket are listed on the <http://www.regulations.gov> web site.

Although listed in the index, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available through <http://www.regulations.gov>, or please contact the person identified in the “**FOR FURTHER INFORMATION CONTACT**” section for additional availability information.

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SUPPLEMENTARY INFORMATION: Throughout this document, “we,” “us,” and “our” refer to the EPA.

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I. General Information

Definitions

For the purpose of this document, we are giving meaning to certain words or initials as follows:

- The initials *ADEQ* mean or refer to the Arizona Department of Environmental Quality.
- The words *Arizona* and *State* mean the State of Arizona.
- The word *Coronado* refers to the Coronado Generating Station.

- The initials *BART* mean or refer to Best Available Retrofit Technology.
- The initials *BOD* mean or refer to boiler operating day.
- The term *Class I area* refers to a mandatory Class I Federal area.¹
- The initials *CAA* mean or refer to the Clean Air Act.
- The words *EPA*, *we*, *us*, or *our* mean or refer to the United States Environmental Protection Agency.
- The initials *FIP* mean or refer to federal implementation plan.
- The initials *lb/MMBtu* mean or refer to pounds per million British thermal units.
- The initials *NAAQS* mean or refer to National Ambient Air Quality Standards.
- The initials *NO_x* mean or refer to nitrogen oxides.
- The initials *PM* mean or refer to particulate matter, which is inclusive of PM₁₀ (particulate matter less than or equal to 10 micrometers) and PM_{2.5} (particulate matter less than or equal to 2.5 micrometers).
- The initials *SCR* mean or refer to selective catalytic reduction.
- The initials *SIP* mean or refer to state implementation plan.
- The initials *SO₂* mean or refer to sulfur dioxide.
- The initials *SRP* mean or refer to the Salt River Project Agricultural Improvement and Power District.
- The initials *tpy* mean or refer to tons per year.

¹ Although states and tribes may designate as Class I additional areas which they consider to have visibility as an important value, the requirements of the visibility program set forth in section 169A of the CAA apply only to mandatory Class I Federal areas. When we use the term “Class I area” in this action, we mean a “mandatory Class I Federal area.”

II. Proposed Action

On April 27, 2017, the EPA proposed to approve a revision to the Arizona Regional Haze SIP for Coronado (“Coronado SIP Revision”)² that provides an alternative to BART for Coronado (“Coronado BART Alternative”).³ The Coronado SIP Revision and BART Alternative consist of an interim operating strategy (“Interim Strategy”) that will take effect on December 5, 2017, and a final operating strategy (“Final Strategy”) that will take effect no later than December 31, 2025. The Coronado BART Alternative was submitted pursuant to provisions of the Regional Haze Rule that allows states to adopt alternative measures in lieu of source-specific BART controls if they can demonstrate that the alternative measures provide greater reasonable progress towards natural visibility conditions than BART.⁴

The Interim Strategy includes three different operating options, each of which requires a period of seasonal curtailment (*i.e.*, temporary closure) for Unit 1. Each year, SRP must select and implement one of the three options based on the nitrogen oxides (NO_x) emissions performance of Unit 1 and the sulfur dioxide (SO₂) emissions performance of Units 1 and 2 in that year. In addition, under each option, the facility must comply with an annual SO₂ emissions cap of 1,970 tons per year (tpy) from Unit 1 and Unit 2 effective beginning in 2018. The Final Strategy in the Coronado SIP Revision requires the installation of selective catalytic reduction (SCR) on Unit 1 (“SCR Option”) or the permanent cessation of operation of Unit 1 (“Shutdown

² As noted in our proposal, the Coronado SIP Revision includes both the original version of the revision (dated July 19, 2016) that was proposed by the Arizona Department of Environmental Quality (ADEQ) for public comment, and an addendum (“Addendum” dated November 10, 2016), in addition to various supporting materials. The Addendum documents changes to the Coronado BART Alternative since ADEQ’s July 19, 2016 proposal. Unless otherwise specified, references in this document to the Coronado SIP Revision include both of these documents, as well as the other materials included in ADEQ’s submittal.

³ 82 FR 19333. Please refer to the notice of proposed rulemaking for background information concerning the CAA, the Regional Haze Rule, and the Arizona Regional Haze SIP and FIP, and a detailed analysis of the Coronado BART Alternative.

⁴ 40 CFR 51.308(e)(2) and (3).

Option”) no later than December 31, 2025. SRP is required to notify ADEQ and the EPA of its selection of either the SCR Option or the Shutdown Option by December 31, 2022. The Final Strategy includes two additional features: an SO₂ emission limit of 0.060 lb/MMBtu, calculated on a 30-boiler operating day (BOD) rolling average, which applies to Unit 2 (as well as Unit 1 if it continues operating), and an annual SO₂ emissions cap of either 1,970 tpy from Unit 1 and Unit 2, if both units continue operating, or 1,080 tpy if Unit 1 shuts down. ADEQ incorporated the revised emission limits, as well as associated compliance deadlines and monitoring, recordkeeping, and reporting requirements, as a permit revision to Coronado’s existing Operating Permit, which was submitted as part of the Coronado SIP Revision (“Coronado Permit Revision”).⁵

We proposed to approve the Coronado SIP Revision because in our assessment it complied with the relevant requirements of the CAA and the Regional Haze Rule. In particular, we proposed to find that the Coronado BART Alternative would achieve greater reasonable progress towards natural visibility conditions than would be achieved through the installation and operation of BART at Coronado.⁶ Because this approval would fill the gap in the Arizona Regional Haze SIP left by the EPA’s prior partial disapproval with respect to Coronado, we also proposed to withdraw the provisions of the Arizona Regional Haze FIP that apply to Coronado. Finally, we proposed revisions to 40 CFR part 52 to codify the removal of those portions of the

⁵ Coronado SIP Revision, Appendix B, Permit No. 64169 as amended by Significant Revision to operating permit No. 63088 (December 14, 2016). The provisions implementing the Coronado BART Alternative are incorporated in Attachment E to the permit. Attachment E will become effective under State law on the date of the EPA’s final action to approve Attachment E into the Arizona SIP and rescind the provisions of the Arizona Regional Haze FIP that apply to Coronado. *Id.* Attachment E, section I.A.

⁶ For purposes of our evaluation, we consider BART for Coronado to consist of a combination of (1) ADEQ’s BART determinations for PM₁₀ and SO₂, which were approved into the applicable SIP, and (2) the EPA’s BART determination for NO_x in the 2016 BART Reconsideration (collectively the “Coronado BART Control Strategy”). *See* 82 FR 19337.

Arizona Regional Haze SIP that have either been superseded by previously-approved revisions to the Arizona SIP or would be superseded by final approval of the Coronado SIP Revision.

III. Public Comments and EPA Responses

The EPA's proposed action provided a 45-day public comment period. During this period, we received comment letters from Earthjustice (on behalf of the Sierra Club and the National Parks Conservation Association),⁷ Environmental Defense Fund (EDF),⁸ SRP,⁹ and two anonymous commenters. Summaries of significant comments and our responses are provided below.

Comments from Non-Governmental Organizations

Comment: Earthjustice argued that the EPA should not approve the Coronado BART Alternative because ADEQ and SRP's rationale for replacing the original BART determination with the BART Alternative is now invalid. Citing several administrative law cases, the commenter stated that the EPA must provide a valid rationale for issuing any regulation, including an approval or disapproval of a SIP, given that standard Administrative Procedure Act (APA) requirements apply to such actions. The commenter noted that both ADEQ and SRP had indicated that the purpose of the Coronado BART Alternative was to delay Unit 1's BART obligations until SRP knew whether it would choose to retire Coronado to comply with the Clean Power Plan (CPP). In particular, the commenter cited statements in the Coronado SIP Revision that referred to regulatory uncertainty related to the CPP. The commenter noted that the "EPA and the new administration have taken multiple actions to indefinitely suspend and review the

⁷ Letter from Michael Hiatt, Earthjustice, to Krishna Viswanathan, EPA (June 12, 2017) ("Earthjustice comment letter").

⁸ Letter from Bruce Polkowsky and Graham McCahan, EDF, to Krishna Viswanathan, EPA (June 12, 2017) ("EDF comment letter").

⁹ Letter from Kelly Barr, SRP, to Krishna Viswanathan, EPA (June 12, 2017) ("SRP comment letter").

[CPP]” and asserted that these actions undercut ADEQ’s rationale for replacing the original BART determination with the Coronado BART Alternative.

Earthjustice acknowledged that the EPA did not discuss the CPP in our proposal. However, citing *Arizona v. EPA*, 815 F.3d 519, 531 (9th Cir. 2016), in which the Ninth Circuit upheld the EPA’s disapproval of ADEQ’s original NO_x BART determination for Coronado, the commenter asserted that, “if ADEQ’s plan is based on an invalid rationale it is unreasonable, and EPA’s approval of the plan would also necessarily be unreasonable and arbitrary.” The commenter argued that the “EPA cannot cure this fatal flaw with the BART alternative by attempting to come up with other rationales for the alternative in response to these comments.”

Earthjustice further asserted that ADEQ should “propose a new BART revision that is based on a valid rationale.” The commenter also noted that SRP could comply with the existing BART determination by shutting down Unit 1 and asserted that “this result would be consistent with other recent decisions across Arizona to shut down coal plants or switch them to gas.”

Response: We agree with the commenter that APA requirements generally apply to the EPA’s approval or disapproval of a SIP revision and that we must provide a reasoned justification for such actions.¹⁰ We also agree with the commenter that both ADEQ and SRP previously indicated that the Coronado BART Alternative was developed to align SRP’s compliance obligations under the CPP and the Regional Haze Rule.

In reviewing a SIP submittal, however, the EPA’s role is to evaluate whether the submittal meets the applicable requirements of the CAA and the EPA’s regulations. If these

¹⁰ We note that the EPA is issuing this final rule under section 307(d) of the CAA, which provides that that: “[t]he provisions of section 553 through 557 . . . of [the APA] shall not, except as expressly provided in this section, apply to actions to which [CAA section 307(d)] applies.” 42 U.S.C. 7607(d)(1). Nonetheless, pursuant to CAA section 307(d)(9)(A), the same arbitrary-and-capricious standard of review applies to an action under 307(d) as to an action subject to the APA.

requirements are met, the EPA must approve the submittal.¹¹ As noted by the commenter, “the EPA does not usurp a state's authority but ensures that such authority is reasonably exercised.”¹² However, the state’s underlying motivation in submitting the SIP revision, which the commenter refers to as the state’s “rationale” is not one of the elements that the EPA is required to evaluate under the CAA. Therefore, in acting on the Coronado SIP Revision, we have not considered the state’s motivation in developing the SIP revision. Rather, as described in our proposal and elsewhere in this document, we have evaluated the Coronado SIP Revision in relation to the relevant requirements of the CAA and the EPA’s regulations, and we have determined that it meets all of these requirements. In particular, the Coronado SIP Revision includes detailed and technically sound analyses supporting the State’s determination that the Coronado BART Alternative would provide greater reasonable progress toward natural visibility conditions than BART. In contrast to the flawed analyses underlying ADEQ’s original NO_x BART determination for Coronado, which we disapproved, the analyses supporting the Coronado BART Alternative were both “reasoned [and] moored to the [Act]’s provisions,”¹³ for the reasons explained in our proposal and elsewhere in this document. Therefore, the commenter’s reliance on the decision of the Ninth Circuit in *Arizona v. EPA*, which upheld that prior disapproval, is misplaced.

Furthermore, the State’s analyses supporting its determination of greater reasonable progress do not rely on the requirements of the CPP or any uncertainty related to those requirements. While the State included a discussion of the CPP in its proposed SIP revision to

¹¹ See CAA section 110(k)(3), 42 U.S.C. § 7410(k)(3) (“[T]he Administrator *shall* approve such submittal as a whole if it meets all of the applicable requirements of [the CAA].” (emphasis added)).

¹² 82 FR 15139, 15142 (March 27, 2017)

¹³ *Arizona v. EPA*, 815 F.3d 519, 531 (9th Cir. 2016) (quoting *North Dakota v. EPA*, 730 F.3d 750, 761 (8th Cir. 2013)).

explain the proposed compliance schedule for the Coronado BART Alternative,¹⁴ the Addendum, which reflects the final requirements of the Coronado SIP Revision, includes a different compliance schedule and no mention of the CPP.

Finally, while the commenter is correct that SRP could choose to comply with the existing BART determination for Coronado Unit 1 by simply shutting down that unit, this fact has no bearing on the approvability of the Coronado SIP Revision. Likewise, the fact that the owners of units of other coal plants in Arizona have chosen to shut down units or switch them to natural gas is not pertinent to the current action.¹⁵

Comment: EDF and Earthjustice both objected to the EPA's and ADEQ's reliance on the two-prong modeling test under 40 CFR 51.308(e)(3) to demonstrate that the Interim Strategy would achieve greater reasonable progress than the Coronado BART Alternative. The commenters noted that 40 CFR 51.308(e)(3) outlines two different tests for evaluating whether a BART alternative achieves greater reasonable progress than BART. In particular, 40 CFR 51.308(e)(3) provides that:

If the distribution of emissions is not substantially different than under BART, and the alternative measure results in greater emission reductions, then the alternative measure may be deemed to achieve greater reasonable progress. If the distribution of emissions is significantly different, the State must conduct dispersion modeling to determine differences in visibility between BART and the trading program for each impacted Class I area, for the worst and best 20 percent of days. The modeling would demonstrate "greater reasonable progress" if both of the following two criteria are met:

¹⁴ See Coronado SIP Revision (July 19, 2016), at 2-3.

¹⁵ We also note that, contrary to the commenters' suggestion, none of the cited examples involve a shutdown or switch to gas to comply with the original BART determination for the facility. The switch to natural gas at Apache Generating Station Unit 2 is part of a BART alternative that replaced the original BART determinations for that facility. See 80 FR 19220 (April 10, 2017). The closure of Cholla Generating Station Unit 2 and cessation of coal burning at Units 3 and 4 are part of a BART reassessment that replaced the original BART determinations for that facility. See 82 FR 15139 (March 27, 2017). Finally, as noted by the commenter, the possible closure of Navajo Generating Station is due to economic factors. See, e.g., Ryan Randazzo, Utilities vote to close Navajo coal plant at end of 2019, Arizona Republic (February 13, 2017).

- (i) Visibility does not decline in any Class I area, and
- (ii) There is an overall improvement in visibility, determined by comparing the average differences between BART and the alternative over all affected Class I areas.¹⁶

The commenters noted that the EPA has consistently interpreted the term “distribution” under the first test in 40 CFR 51.308(e)(3) (the “emissions-reduction test”) to refer to geographic distribution. Citing to prior EPA rulemaking actions, EDF stated that the “EPA has traditionally applied the modeling test only in cases where ‘the distribution of emissions is significantly different’ between BART and the BART alternative.” Earthjustice further asserted that, “[w]hen deciding which ‘Better than BART’ test applies, the determinative factor is whether the distribution of emissions between the alternative and BART is substantially different.” The commenters also noted that, in our proposal to approve the Coronado BART Alternative, we again interpreted “distribution” to refer to geographic distribution when we proposed to determine that the Final Strategy would not result in a substantially different distribution of emissions from BART. However, the commenters suggested that, by proposing to approve ADEQ’s use of the two-prong modeling test, rather than the emissions-reduction test, to evaluate the Interim Strategy, the EPA was improperly applying a different interpretation of “distribution” to the Interim Strategy.

Earthjustice further asserted that the Coronado BART Alternative “fails” the emissions-reduction test, which it characterized as the “correct” test to apply in this instance. Citing the difference in total NO_x, SO₂, and PM₁₀ emissions for each of the Interim Strategy scenarios compared with BART, Earthjustice stated that each of the Interim Strategy options “will result in greater overall air pollution than BART for eight years after the December 2017 BART

¹⁶ 40 CFR 51.308(e)(3).

compliance deadline.” For this reason, the commenter concluded that the Coronado BART Alternative is not “Better than BART” and that the EPA should disapprove it.

Response: We agree with the commenters that the EPA’s long-standing interpretation of 40 CFR 51.308(e)(3) is that, if the geographic distribution of emissions is the same under the BART alternative and BART, then the emissions distribution is not substantially different.¹⁷ However, as explained further below, we do not agree with the commenters that the distribution of emissions is a determinative factor, such that if the distribution of emissions under the BART alternative is not substantially different than under BART, then the alternative *must* be evaluated using the emissions-reduction test. We also do not agree that the EPA has previously interpreted 40 CFR 51.308(e)(3) to include such a requirement. Accordingly, contrary to the commenters’ assertions, we have not departed from our long-standing interpretation in evaluating the Coronado SIP Revision.

As an initial matter, we note that under 40 CFR 51.308(e)(2)(i)(E), a SIP revision establishing a BART alternative must include a determination under 40 CFR 51.308(e)(3) *or* otherwise based on the clear weight of evidence that the alternative achieves greater reasonable progress than BART. Thus, a state (or the EPA in promulgating a FIP) always has the option to make a “clear weight of evidence” demonstration rather than choosing either of the two options under 40 CFR 51.308(e)(3).¹⁸

If a state does elect to make a demonstration under 40 CFR 51.308(e)(3), the first test (the emissions-reductions test) provides the option to make a demonstration without the need for

¹⁷ As noted by the conservation organizations, the Ninth Circuit recently upheld this interpretation as reasonable. *Yazzie v. EPA*, 851 F.3d 960, 973 (9th Cir. 2017).

¹⁸ See *WildEarth Guardians v. EPA*, 770 F.3d 919, 935-37 (10th Cir. 2014) (recognizing that a state may choose to make a demonstration under 40 CFR 51.308(e)(3) or under a weight-of-evidence approach).

dispersion modeling when two conditions are satisfied: (1) “the distribution of emissions is not substantially different than under BART” *and* (2) “the alternative measure results in greater emission reductions.”¹⁹ If the first condition is *not* satisfied (and the state has opted to make a demonstration under 40 CFR 51.308(e)(3) rather than a weight-of-evidence demonstration), then 40 CFR 51.308(e)(3) provides that the state *must* make a demonstration under the two-prong modeling test.²⁰ By contrast, 40 CFR 51.308(e)(3) does *not* indicate that a state *must* apply the emissions-reduction test whenever the first condition of the emissions-reduction test is satisfied. Thus, a state may choose to apply the two-prong modeling test even if it determines that the first condition of the emissions-reductions test is satisfied.

None of the examples of prior EPA actions cited by the commenters indicate that the EPA has previously interpreted 40 CFR 51.308(e)(3) to *require* use of the emissions-reduction test whenever the first condition of that test is satisfied. Rather, the examples demonstrate that states and the EPA have *generally* applied the emissions-reduction test where *both* conditions of that test were clearly satisfied.²¹ However, in other instances, states and the EPA have made a weight-of-evidence demonstration when the first condition of the emissions-reduction test was satisfied, but it was not clear whether the second condition was satisfied. For example, in 2015 we approved a weight-of-evidence demonstration submitted by ADEQ for a BART alternative at the Apache Generating Station (“Apache BART Alternative”).²² In that case, all of the emissions were from a single facility, so the first condition of the emissions-reduction test was satisfied.

¹⁹ 40 CFR 51.308(e)(3).

²⁰ *Id.* (“If the distribution of emissions is significantly different, the State *must* conduct dispersion modeling” (emphasis added)).

²¹ This general trend is unsurprising, given that the emissions-reduction test demands less time and effort as it does not require modeling.

²² 80 FR 19220 (April 10, 2015).

However, as with the Coronado BART Alternative, the Apache BART Alternative was expected to result in greater NO_x emissions but lower emissions of SO₂ and PM₁₀ compared with BART.²³ We found that, “[i]n this situation, where BART and the BART Alternative result in reduced emissions of one pollutant but increased emissions of another, it is not appropriate to use the ‘greater emissions reductions’ test under 40 CFR 51.308(e)(3).”²⁴ Similarly, when evaluating a BART alternative for the Tesoro Refinery in Anacortes, Washington, we determined that, even though all of the emissions were from a single facility, modeling was needed “to assess whether the visibility improvement from the BART Alternative’s SO₂ emission reductions would be greater than the visibility improvement from the BART NO_x reductions.”²⁵ Likewise, when evaluating a proposed BART alternative for the Four Corners Power Plant, the EPA considered the weight of evidence, including visibility modeling, even though all emissions were from a single facility.²⁶

In evaluating the Coronado BART Alternative, we have followed our long-standing interpretation of 40 CFR 51.308(e)(3) that, if the geographic distribution of emissions is the same under the BART alternative and BART, then the emissions distribution is not substantially different. With regard to the Final Strategy, we found that the distribution of emissions would not be substantially different than under BART because all emissions under both scenarios were from Coronado. Furthermore, under the Final Strategy, emissions of each pollutant would be lower than or equal to BART, and the collective emissions from the facility would be lower than

²³ *Id.* at 19221.

²⁴ 80 FR 19221.

²⁵ 78 FR 79344, 79355 (December 30, 2013).

²⁶ *See* 76 FR 10530, 10534 (February 25, 2011) (“EPA is proposing to find, based on the weight of evidence, that [the proposed alternative] will result in greater reasonable progress towards the national visibility goal under section 169A(b)(2) than EPA’s October 19, 2010 BART proposal” and 10537 (discussing modeling results, even though the alternative could be deemed to result in greater reasonable progress based on the emissions-reduction test)).

BART.²⁷ This allowed us to use the emissions-reduction test to confirm that the Final Strategy would ensure greater reasonable progress than BART.

In our proposal, we did not evaluate the Interim Strategy under the emissions-reduction test because ADEQ did not make a demonstration under this test. Therefore, we had no cause to consider whether the two conditions of that test were satisfied. Nonetheless, in response to the commenters' concerns, we wish to clarify that the same interpretation of "distribution of emissions" would apply to the Interim Strategy. Because all of the emissions under the Interim Strategy and BART are from Coronado, the distribution of emissions would not be substantially different under the two scenarios, so the first condition of the test is satisfied. Regarding the second condition of the emissions-reduction test, ADEQ found that the Interim Strategy would result in greater NO_x emissions, but lower emissions of SO₂ and PM₁₀ compared with BART.²⁸ Contrary to Earthjustice's suggestion, ADEQ did not determine that the Interim Strategy "fails" the emissions-reduction test. Rather, ADEQ found that the Interim Strategy would not *necessarily* achieve greater emissions reductions than BART.²⁹ Furthermore, while the commenters point to the difference in total NO_x, SO₂, and PM₁₀ emissions for each of the Interim Strategy scenarios compared with BART, we do not consider this comparison to be useful. As we explained in evaluating a proposed BART alternative submitted by Utah:

We have not considered a total emissions profile that combines emissions of multiple pollutants to determine whether BART or the alternative is "better," except where every visibility impairing pollutant is reduced by a greater amount under the BART alternative. A comparison of mass emissions from multiple

²⁷ As explained in our proposal, while the Final Strategy by itself would not meet the requirements for a BART alternative, we considered whether the Final Strategy would provide for ongoing visibility improvement, as compared with BART, by evaluating whether the Final Strategy meets both conditions of the emissions-reduction test under 40 CFR 51.308(e)(3). 82 FR 19342.

²⁸ 82 FR 19338.

²⁹ Coronado SIP Revision, Addendum page 4.

pollutants (such as NO_x and SO₂) is not generally informative, particularly in assessing whether the alternative approach provides for greater reasonable progress towards improving visibility. Instead, when emissions of one or more pollutants increases under an alternative, EPA has given the most weight to the visibility impacts based on air quality modeling and used modeling to determine whether or not a BART Alternative measure that relies on interpollutant trading results in greater reasonable progress.³⁰

Accordingly, we do not agree with the commenters that the Coronado BART Alternative “fails” the emissions-reduction test. Rather, we find that the emissions-reduction test is not the appropriate test to evaluate the Interim Strategy of the Coronado BART Alternative, and it was appropriate and reasonable for the State to apply the two-prong modeling test to evaluate the Interim Strategy.

Comment: Earthjustice argued that the Coronado BART Alternative violates CAA section 110(l)’s anti-backsliding requirement because it weakens the existing BART determination for Coronado. Quoting CAA section 110(l) and citing several court cases interpreting that provision, the commenter stated that section 110(l) “prohibits plan revisions that would interfere with an existing BART determination” and that the “EPA’s common sense interpretation of section 110(l) is that it prevents plan revisions that backslide or weaken an existing Clean Air Act requirement by increasing overall air pollution or causing worse air quality.” The commenter asserted that the Coronado BART Alternative weakens the existing BART determination for Coronado because it would result in increased air pollution and cause worse visibility impairment at multiple Class I areas in the years 2018 through 2025 and therefore violates section 110(l).

The commenter further argued that the EPA improperly based our 110(l) analysis on our determination that the Coronado BART Alternative would result in greater reasonable progress

³⁰ 81 FR 2004, 2028 (January 14, 2016) (internal citations and quotations omitted).

than BART. The commenter re-asserted its claim that the Coronado BART Alternative is not “Better than BART” because it “fails” the emissions-reduction test. Earthjustice also argued that, “[b]ecause the purposes of a BART alternative and section 110(l) are distinct and a BART alternative may perform worse than BART in some respects, it is unreasonable to use the ‘Better than BART’ test as the sole criterion for whether an alternative complies with section 110(l).”

Earthjustice further noted that ADEQ was not choosing between BART and a BART alternative for Coronado in the first instance, but was instead replacing an existing BART determination that had been fully litigated and in place for four and a half years. They argued that, under these circumstances, section 110(l) requires the EPA to independently determine whether the alternative weakens the existing BART determination, and the EPA cannot rely on the “Better than BART” test as the sole criterion for whether an alternative complies with section 110(l).

Finally, the commenter made several points related to the EPA’s approval of a SIP revision that established a new BART determination for Cholla Generating Station (“Cholla BART Reassessment”). Noting certain similarities between the Coronado BART Alternative and the Cholla BART Reassessment, the commenter argued that the EPA had improperly “applied a completely different rationale and analysis when determining whether the two BART revisions complied with section 110(l) for regional haze purposes.” The commenter also criticized the EPA’s responses to comments on section 110(l) issues related to the Cholla BART Reassessment and asserted that the EPA “should not attempt to justify the Coronado BART alternative on similar grounds.” In particular, the commenter asserted that the EPA had (1) conflated its section 110(l) analysis regarding NAAQS attainment with its section 110(l) analysis regarding Cholla’s existing regional haze requirements, (2) unreasonably dismissed the relevant section 110(l) case

law, and (3) incorrectly relied, in part, on post-2025 emissions reductions from Cholla to justify why the plan complied with section 110(l).

Response: We do not agree that the Coronado SIP Revision violates CAA section 110(l). As explained further below, the commenter has mischaracterized the requirements of section 110(l) and the EPA's interpretation of those requirements. Neither the statutory language nor the case law cited by the commenter support the commenter's interpretation that a SIP revision that allows for additional air emissions or less stringent requirements than the existing plan *per se* constitutes a violation of CAA section 110(l).

Section 110(l) prohibits the EPA from approving a SIP revision "if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in [CAA section 171]), or any other applicable requirement of [the CAA]."³¹ This language does not prohibit the EPA from approving *any* SIP revision that weakens the existing plan's requirements or allows for an increase in emissions of a particular pollutant, nor has the EPA interpreted section 110(l) in this manner. The EPA's evaluation of whether a noninterference determination can be made under section 110(l) is a case-by-case assessment based on the specific facts and circumstances at issue. The commenter has selectively quoted from the EPA's prior actions and court cases concerning those actions in order to support their position. In particular, the commenter asserts that, "in *Kentucky Resources Council, Inc. v. EPA*, 467 F.3d 986 (6th Cir. 2006), EPA interpreted section 110(l) as allowing the agency to approve a plan revision that weakened some existing control measures while strengthening others, but only '[a]s long as actual emissions in the air are not increased.'" However, the context for the quote

³¹ 42 U.S.C. 7410(l)

makes clear that the EPA was not referring to a blanket prohibition on increases in emissions. Rather, we were describing our interpretation of section 110(l) as applied to a SIP revision that substituted emissions reductions to make up for increased emissions resulting from moving an existing control measure to a contingency measure. We determined that we could approve this change without requiring an attainment demonstration, explaining that:

Prior to the time when the control strategy SIP revisions are due, to demonstrate no [interference] with any applicable NAAQS or requirement of the Clean Air Act under section 110(l), EPA has interpreted this section such that States *can* substitute equivalent (or greater) emissions reductions to compensate for the control measure being moved from the regulatory portion to the contingency provisions. As long as actual emissions in the air are not increased, EPA believes that equivalent (or greater) emissions reductions *will be acceptable* to demonstrate non-interference.³²

Thus, in the circumstances presented in that case, we found that, rather than submit a new attainment demonstration, the state could instead substitute one measure for another with equivalent or greater emissions reductions/air quality benefit in order to demonstrate noninterference with attainment, maintenance, and reasonable further progress (RFP) requirements. However, the EPA has never indicated that such a substitution approach is required in all cases. In some cases, states can provide an air quality analysis, typically based on modeling, showing that removing a particular control measure will not interfere with attainment, maintenance, or RFP requirements.³³ Additionally, a modeling-based demonstration of non-interference with these requirements may be possible where increases in one pollutant are offset

³² 70 FR 28429, 28430 (May 18, 2005) (emphasis added).

³³ See “Demonstrating Noninterference Under Section 110(l) of the Clean Air Act When Revising a State Implementation Plan,” 6, 10-11 (June 8, 2005) (Draft Guidance).

by decreases in another pollutant and the modeling analysis shows that the decreases will provide at least equivalent air quality benefits for each affected NAAQS.³⁴

The cases cited by the commenter also fail to support the commenter's interpretation. In *Kentucky Resources Council*, the court upheld the EPA's decision that a new attainment demonstration was not required in order to show that the SIP revision would not interfere pursuant to section 110(l).³⁵ Thus, the examination of whether the SIP revision would "worsen air quality" was based on whether the area, which was designated as a nonattainment area for the relevant NAAQS, would have more difficulty in attaining and maintaining the NAAQS with the SIP revision—not, as the commenter argues here, whether the SIP revision would simply result in increased emissions. Similarly, the *Ala. Env'tl. Council v. EPA*³⁶ and *Indiana v. EPA*³⁷ courts upheld the EPA's interpretation that section 110(l) allows for a substitution approach to demonstrate non-interference with the Act's requirements, but did not hold that an increase in emissions *per se* constituted a violation of section 110(l).

A fourth case cited by the commenter, *Hall v. EPA*,³⁸ concerned the EPA's analysis of non-interference with attainment requirements in a nonattainment area and did not address the Act's other requirements (including visibility protection requirements) or how those requirements apply in attainment areas.³⁹ Thus, the case is not relevant to the commenters' objections, which specifically concern visibility protection requirements.⁴⁰

³⁴ *Id.* at 8.

³⁵ 467 F.3d 986, 996 (6th Cir. 2006).

³⁶ 711 F.3d 1277, 1293 (11th Cir. 2013).

³⁷ 796 F.3d 803, 812 (7th Cir. 2015).

³⁸ 273 F.3d 1146 (9th Cir. 2001).

³⁹ *Id.* at 1160, n.11 ("Our assessment of the EPA's reasoning does not apply to review of rules governing areas that are in attainment.")

⁴⁰ See Earthjustice comment letter at 22 ("[T]he Conservation Organizations take no issue with EPA's finding that the alternative does not interfere with attainment of the applicable NAAQS.")

Two additional cases cited by the commenter concerned regional haze SIP actions, but do not support the commenter's contention that "after EPA approves a BART determination (or other regional haze requirement), the agency cannot later modify the BART determination in a manner that weakens it."⁴¹ *WildEarth Guardians v. EPA*⁴² involved a challenge to a regional haze plan under section 110(l)'s requirements concerning noninterference with attainment and maintenance, which the commenter acknowledges are not of concern in relation to the Coronado SIP Revision.⁴³ In that case, the court found that the petitioner had identified nothing in the SIP revision at issue "that weakens or removes any pollution controls."⁴⁴ Contrary to the commenter's assertion, the court did not suggest that, if the petitioner had identified such a provision, it would necessarily have constituted a violation of section 110(l). In fact, the court declined to decide if section 110(l) even applied to the plan in question, stating only in dicta that, "even if the SIP merely maintained the status quo, that would not interfere with the attainment or maintenance of the NAAQS."⁴⁵

*Oklahoma v. EPA*⁴⁶ affirmed the EPA's authority to review state BART determinations, based on, among other things, section 110(l). However, contrary to the commenter's suggestion, the *Oklahoma* court did not indicate that individual BART determinations themselves are "applicable requirements" for purposes of section 110(l). Rather, the court found that the underlying statutory requirements concerning visibility protection constitute "applicable

⁴¹ *Id.* at 20.

⁴² 759 F.3d 1064 (9th Cir. 2014).

⁴³ See Earthjustice comment letter at 22 ("[T]he Conservation Organizations take no issue with EPA's finding that the alternative does not interfere with attainment of the applicable NAAQS.")

⁴⁴ *WildEarth Guardians*, 759 F.3d at 1074.

⁴⁵ *Id.*

⁴⁶ 723 F.3d 1201, 1204, 1207 (10th Cir. 2013).

requirements.”⁴⁷ Accordingly, it is these generally applicable statutory requirements for which a demonstration of non-interference is required.

In this instance, the critical statutory requirement is that the applicable implementation plan “contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal” of preventing any future and remedying any existing visibility impairment in Class I areas due to manmade air pollution.⁴⁸ While measures for achieving “reasonable progress” generally include requirements for source-specific BART determinations,⁴⁹ the EPA has long interpreted CAA section 169A(b)(2) to allow for the adoption of “implementation plan provisions other than those provided by BART analyses in situations where the agency reasonably concludes that more ‘reasonable progress’ will thereby be attained” because “‘reasonable progress’ is the overarching requirement that implementation plan revisions under 42 U.S.C. § 7491(b)(2) must address.”⁵⁰ This interpretation has been upheld by both the Ninth Circuit⁵¹ and the D.C. Circuit⁵² and is reflected in the “Better than BART” provisions of the Regional Haze Rule that apply to the Coronado SIP Revision.⁵³ Accordingly, in evaluating the Coronado SIP Revision under section 110(l) with respect to the Act’s visibility protection requirements, the relevant question is not whether it would interfere with the BART determination in our FIP, but whether it would

⁴⁷ The court specifically noted that the visibility protection provisions of CAA section 169A and 169B are “applicable requirements” for purposes of CAA section 110(a)(2)(J). We agree with the commenter that these requirements are also “applicable requirements” for purposes of section 110(l).

⁴⁸ CAA section 169A(b)(2), 42 U.S.C. § 7491(b)(2).

⁴⁹ CAA section 169A(b)(2)(A), 42 U.S.C. § 7491(b)(2)(A).

⁵⁰ *Central Arizona Water Conservation District v. EPA*, 990 F.2d 1531, 1543 (9th Cir. 1993)

⁵¹ *Id.*

⁵² *Center for Energy and Economic Development v. EPA*, 398 F.3d 653, 660 (D.C. Cir. 2005); *Utility Air Regulatory Group v. EPA*, 471 F.3d 1333, 1340-41 (D.C. Cir. 2006).

⁵³ 40 CFR 51.308(e)(2)-(6). See also *Central Arizona Water Conservation District*, 990 F.2d at 1543; *Center for Energy and Economic Development*, 398 F.3d at 660; *Utility Air Regulatory Group*, 471 F.3d at 1340-41 (upholding the “better-than-BART” provisions).

interfere with the overall statutory requirement for reasonable progress, as implemented through the “Better than BART” provisions of the Regional Haze Rule. For the reasons explained in our proposal and elsewhere in this document, we have determined that the Coronado SIP Revision satisfies the “Better than BART” requirements of the Regional Haze Rule, meaning that it will result in greater reasonable progress than the existing BART requirements for Coronado.

Therefore, the Coronado SIP Revision complies with the Act’s reasonable progress requirements. As such, we do not agree with the commenter that we must apply some separate criterion to determine whether the Coronado SIP Revision would interfere with those same requirements.

Furthermore, even if such a separate evaluation were necessary, we believe that the modeling performed to support ADEQ’s demonstration of greater reasonable progress for the Interim Strategy is adequate to demonstrate non-interference with the Act’s visibility protection provisions.⁵⁴ As noted above, we interpret section 110(l) to allow for a modeling-based demonstration of non-interference with attainment, maintenance, and RFP requirements where increases in one pollutant are offset by decreases in another pollutant and the modeling analysis shows that the decreases will provide at least equivalent air quality benefits for each affected NAAQS.⁵⁵ Similarly, such a modeling demonstration is appropriate to demonstrate non-interference with visibility protection requirements when reductions of one or more pollutants (in the case of the Interim Strategy, SO₂ and PM) are being substituted for reductions of another pollutant (in the case of the Interim Strategy, NO_x). As described in our proposal and elsewhere

⁵⁴ The commenter does not appear to object to our determination that implementation of the Final Strategy would clearly satisfy section 110(l) because it would result in overall greater emissions reductions compared to the BART Control Strategy.

⁵⁵ Draft Guidance at 8.

in this document, the modeling submitted with the Coronado SIP Revision demonstrates that the Interim Strategy will result in improved visibility at all affected Class I areas compared with 2014 Baseline Emissions (prong 1) and will result in improved visibility, on average, across all Class I areas, compared with BART on both the 20% best and worst days (prong 2).⁵⁶ As the commenter noted, the modeling indicates that visibility improvement at certain Class I areas will be slightly less under the Interim Strategy as compared with BART between 2018 and 2025. However, we do not believe that a temporary decrease in the rate of improvement at these areas constitutes “interference” with the Act’s visibility protection requirements, given that it is accompanied by a greater improvement at other Class I areas. As the D.C. Circuit has explained, “nothing in [CAA] § 169A(b)’s ‘reasonable progress’ language requires at least as much improvement at each and every individual area as BART itself would achieve (much less improvement at each area at every instant)”⁵⁷ Furthermore, once the Final Strategy is implemented by 2026, we anticipated that there will be greater improvement across all Class I areas compared to BART.⁵⁸ Therefore, we conclude that the Coronado SIP Revision will not interfere with the CAA’s visibility protection requirements.

The commenters’ statements regarding the Cholla BART Reassessment are out of the scope of today’s action. That action was a separate analysis based on the facts and circumstances of that SIP revision, which we finalized on March 17, 2017. We also do not agree with the commenter that we improperly applied a different rationale and analysis when determining whether the Coronado BART Alternative and the Cholla BART Reassessment complied with

⁵⁶ See 82 FR 19338-19341.

⁵⁷ *Utility Air Regulatory Group*, 471 F.3d at 1340-41.

⁵⁸ We do not agree with the commenter that it is inappropriate to consider post-2025 emissions reductions under section 110(l), given that such reductions will help to ensure continued compliance with the Act’s reasonable progress requirements.

section 110(l). In both cases, we considered whether the relevant SIP revision would interfere with the applicable statutory requirements.⁵⁹ However, despite some similarities between the two SIP revisions, they are not subject to all the same statutory requirements, so the respective section 110(l) analyses necessarily differ in some respects. In particular, because the Cholla BART Reassessment was a BART determination, we considered whether it met the CAA's BART requirements, as well as whether it was consistent with the CAA's long-term national goal of restoring natural visibility conditions at Class I areas.⁶⁰ Because the CAA's BART requirements do not apply to a BART alternative,⁶¹ we did not consider them in reviewing the Coronado SIP Revision under section 110(l). Rather, as explained above, we have considered whether the Coronado SIP Revision is consistent with the CAA requirement for reasonable progress toward the long-term national goal.

Finally, while we do not agree that our responses to comments concerning the Cholla BART Reassessment were mistaken, those responses are not at issue in this action. To the extent that the commenter's concerns are relevant to the Coronado SIP Revision, we have addressed them above.

Comment: Earthjustice and EDF both raised concerns with the CAMx modeling relied upon by ADEQ and the EPA to determine that the Interim Strategy would result in greater reasonable progress than BART. They noted that, although ADEQ had performed additional analyses to determine if the modeled visibility changes could be attributed to emissions changes rather than model "noise," the results were "still applicable to only one year's meteorological

⁵⁹ 81 FR 46862; 82 FR 15150.

⁶⁰ *Id.*

⁶¹ *See, e.g., Yazzie*, 851 F.3d at 969 (affirming that statutory deadline for BART does not apply to a BART alternative).

transport pattern.” They asserted that the EPA should require a demonstration that the emissions curtailments would result in better visibility conditions across varied air transport conditions.

EDF acknowledged that the EPA’s modeling guidance allows the use of a single year of meteorological data for modeling of regional scale pollutants using CAMx. However, the commenters noted that the CAMx modeling for the Coronado BART Alternative focused on a single source’s impacts on very specific geographic locations that “would have large variations due to yearly meteorological changes in wind transport patterns.” Earthjustice stated that most BART determinations and all BART alternatives that it was aware of relied on CALPUFF modeling. EDF and Earthjustice also noted that, where the EPA had previously used CAMx modeling for BART determinations, it was in conjunction with CALPUFF modeling, which typically uses at least a three-year meteorological database. They asserted that, in light of the small changes in visibility between the modeled emissions scenarios, “the difference in impacts that delineate one alternative curtailment period from another are within the margin of error for the model output.” They also stated that, if the difference were consistent from year to year, “it would provide more confidence in the resulting implementation of multiple curtailment periods.” Earthjustice added that “the demonstration provided by ADEQ only gives information about the relative performance of BART versus the alternative if the 2008 meteorological conditions are duplicated in every future year.”

Response: We acknowledge the commenters’ concern about the robustness of a modeling analysis based on a single year of meteorology, given the year-to-year variability of meteorological conditions and their possible effect on visibility impacts. However, the Regional Haze Rule does not require modeling of a longer period to make a demonstration under the two-prong test, and EPA guidance also does not recommend a longer period. Rather, to address a

range of meteorological conditions, the EPA's photochemical modeling guidance recommends modeling a full year. Our current guidance states that "the preferred approach for regional haze-related model applications is to simulate an entire, representative year."⁶² More recent draft guidance states:

Regional Haze - Choose time periods which reflect the variety of meteorological conditions which represent visibility impairment on the 20% best and 20% worst days in the Class I areas being modeled (high and low concentrations necessary). This is best accomplished by modeling a full year.⁶³

Thus, modeling a full year with a photochemical model to represent visibility impairment on the 20% best and worst days is consistent with EPA guidance.

We also note that states and the EPA rarely, if ever, model more than a single year with a photochemical model even for NAAQS attainment demonstrations covering large urban areas with thousands of sources possibly subject to emission controls. A key reason for the practice and recommendation of modeling just a single year is the time and expense involved in running the computationally-intensive computer model and in preparing meteorological and emissions inputs. The emission inventory requires economic variables and population estimates for the whole area covered in the model domain, as well as the emissions calculations for the many sources of pollution in the domain. Meteorological and other model input parameters typically must be adjusted in an iterative process to ensure the model performs adequately. The model's performance must then be evaluated. All of these tasks must be done separately for each year. Thus, while modeling longer periods may improve the robustness of the modeling results, it also requires significant additional time and resources. Therefore, it is prudent to assess whether the

⁶² *Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM_{2.5}, and Regional Haze*, EPA-454/B-07-002 (April 2007) p.149.

⁶³ *Modeling Guidance for Demonstrating Attainment of Air Quality Goals for Ozone, PM_{2.5}, and Regional Haze*, 17 (December 2014) (draft).

benefits of the modeling justify the additional effort for each individual application. Given that the modeling for the Coronado SIP Revision affects only a single source for a limited period of time (*i.e.*, the period of the Interim Strategy), we do not think it is reasonable to require more than a single year of photochemical modeling.

We note that the situation was different for the CALPUFF modeling that states and the EPA conducted for BART determinations, for which the EPA recommended that at least three years of meteorological data be used.⁶⁴ Under the BART Guidelines, CALPUFF could be used for assessing the visibility impacts of a single source without the process of input adjustment and performance evaluation described above for photochemical models.⁶⁵ Furthermore, the emission inventory for BART modeling was a single source, rather than the thousands of sources needed in a photochemical model such as CAMx. The meteorological inputs to CALPUFF are also simpler than for a photochemical model, and they were developed by multistate Regional Planning Organizations, such as the Western Regional Air Partnership (WRAP), for use in BART determinations for numerous different facilities. In summary, while the CALPUFF modeling used for BART determinations employed multiple years of meteorology, the cost and effort involved was lower than for CAMx, and it was spread over multiple states and sources. By contrast, the Interim Strategy in the Coronado SIP Revision affects only a single source for a limited period of time. Accordingly, we find that modeling multiple years with CAMx for the

⁶⁴ See 70 FR 39107-39108 (“For assessing the fifth factor, the degree of improvement in visibility from various BART control options, the States may run CALPUFF or another appropriate dispersion model to predict visibility impacts. . . . The maximum 24-hour emission rates would be modeled for a period of three or five years of meteorological data.”)

⁶⁵ See, *e.g.*, BART Guidelines, 40 CFR part 51, appendix Y, section IV.D.5. (“Use CALPUFF or other appropriate dispersion model to determine the visibility improvement expected at a Class I area from the potential BART control technology applied to the source”); 70 FR 39123 (“For the specific purposes of the regional haze rule’s BART provisions . . . we have concluded that CALPUFF is sufficiently reliable to inform the decision-making process.”)

two-prong test applied to the Interim Strategy would constitute a disproportionately high level of effort relative to the modest benefit of such an approach.

Regarding the specific year chosen for modeling the Interim Strategy, as discussed in connection with SRP's comments and the analysis submitted by Ramboll Environ,⁶⁶ we find that the 2008 meteorology year was adequately representative for the two-prong test. In addition, as explained further below, that analysis presented evidence that 2008 was a conservative year, in that the Interim Strategy would be expected to show a greater benefit compared to the baseline and BART in other years.

Comment: Earthjustice and EDF expressed concern about the use of a projected 2020 inventory rather than clean conditions or the inventory of a "known year" for the CAMx modeling. Earthjustice asserted that, "[t]o the extent EPA considers 2020 to be more representative of future or cleaner air quality conditions, CAMx should instead have been run with only single source emissions plus nonanthropogenic emissions to simulate reaction chemistry under natural conditions." They argued that the EPA must include CALPUFF modeling to help support the conclusion that the Coronado BART Alternative is in fact better than BART "when looking at source impacts compared with natural conditions."

Response: We do not agree that ADEQ should have used natural conditions or the inventory of a "known" (*i.e.*, past) year to evaluate the Interim Strategy. The Regional Haze Rule does not identify which background conditions states must use for evaluating greater reasonable progress under the two-prong test in 40 CFR 51.308(e)(3). However, in the preamble to the final rule promulgating the two-prong test, we explained that:

⁶⁶ "Additional Documentation on the Coronado Generating Station Better-than-BART Modeling Analysis to Address EPA's October 2016 Request", Memorandum from Lynsey Parker and Ralph Morris, Ramboll Environ to Bill McClellan, Salt River Project (April 6, 2017).

The underlying purpose of both prongs of the test is to assess whether visibility conditions at Class I areas would be better with the alternative program in place than they would without it. . . . In both cases, the logical reference point is visibility conditions as they are expected to be at the time of program implementation but in the absence of the program.”⁶⁷

In other words, the projected conditions at the time the BART alternative will be implemented, including emissions from all other sources, but assuming that no emission reductions from BART or the BART alternative have yet occurred, are an appropriate background for modeling under the two-prong test. Here, the Interim Strategy will be implemented between 2018 and 2025, so ADEQ’s decision to use the 2020 emissions inventory as the background conditions for comparing the Interim Strategy to BART was reasonable.

We also do not believe that it is necessary to conduct CALPUFF modeling to support the conclusion that the Coronado BART Alternative would result in greater reasonable progress than BART. While ADEQ could have elected to conduct CALPUFF modeling to make a demonstration of greater reasonable progress, it instead chose to use CAMx modeling to make this demonstration. As explained in our proposal:

CAMx has a scientifically current treatment of chemistry to simulate the transformation of emissions into visibility-impairing particles of species such as ammonium nitrate and ammonium sulfate, and is often employed in large-scale modeling when many sources of pollution and/or long transport distances are involved. Photochemical grid models like CAMx include all emissions sources and have realistic representations of formation, transport, and removal processes of the particulate matter that causes visibility degradation.⁶⁸

Because it incorporates the many emissions sources that create the background conditions at the time the BART alternative will be implemented, CAMx is well suited for modeling under the two-prong test.⁶⁹ Furthermore, as a result of recent developments in modeling techniques,⁷⁰ the

⁶⁷ 70 FR 39104, 39138 (July 6, 2005).

⁶⁸ 82 FR 19338-19339.

⁶⁹ As explained in response to comments above, it was appropriate and reasonable for the State to apply the two-

EPA and states have begun to use photochemical models such as CAMx to assess the visibility impacts from individual sources such as Coronado.⁷¹ Thus, ADEQ appropriately relied on CAMx modeling to assess the Coronado BART Alternative under the two-prong modeling test.

Comment: Earthjustice and EDF objected to the fact that the CAMx modeling used to assess the Coronado BART Alternative was limited to a range of 300 kilometers (km), given that the EPA has previously used CAMx to assess impacts beyond the 300 km range. EDF stated that the EPA should explain why the 300 km limit was appropriate. Earthjustice argued that the EPA should include modeling results for Class I areas outside of 300 km.

Response: We agree with the commenters that there is no *a priori* reason to limit the modeling under the two-prong test to Class I areas within 300 km.⁷² We nevertheless find that the set of Class I areas evaluated in the CAMx modeling is adequately representative in this instance. The 300 km radius used in the modeling covers a large region, a range of geographic settings, and a full range of compass directions from Coronado. In addition, the visibility impacts of Coronado's emissions generally decline with distance.⁷³ Because of that, when comparing projected visibility conditions under the BART Alternative scenario to projected visibility conditions under the baseline scenario, the differences between the two scenarios generally decline with distance. The same is true when comparing the BART Alternative to BART. As a

prong modeling test to the Coronado BART Alternative.

⁷⁰ See, e.g., 82 FR 5182, 5196 ("Source sensitivity and apportionment techniques implemented in photochemical grid models have evolved sufficiently and provide the opportunity for estimating potential visibility and deposition impacts from one or a small group of emission sources using a full science photochemical grid model.").

⁷¹ See, e.g., 81 FR 296, 327-28 (January 5, 2016) (describing the use of CAMx for evaluating visibility impacts of sources in a Texas Regional Haze FIP).

⁷² Neither the Regional Haze Rule nor EPA guidance define "affected" Class I areas for purposes of the two-prong test.

⁷³ This is illustrated in the graphic "Coronado CAMx Baseline Impacts - Baseline delta DV Impact vs. km distance," in the file titled "Coronado_baseline_CAMx_ddv_vs_distance.pdf," available in the docket for this action.

result, while including more distant areas would have a small effect on the numerical values used in the two-prong test, doing so would be unlikely to change the outcome of the test.

Comment: SRP commented that it strongly supports the EPA's:

- proposed approval of ADEQ's demonstration under 40 CFR 51.308(e)(3) that the Coronado BART Alternative Interim Strategy will achieve greater reasonable progress than BART at Coronado;
- proposed approval of the CAMx modeling used by ADEQ;
- determination that the Coronado BART Alternative Final Strategy will result in greater emission reductions than BART for Coronado; and
- determination that the Final Strategy and its associated emission reductions are not necessary to demonstrate that the Coronado BART Alternative will achieve greater reasonable progress than BART during the period of the first long-term strategy.

Response: We acknowledge the comments.

Comment: SRP urged the EPA to note the assessment that ADEQ conducted that shows the importance of SO₂ (and resulting sulfate) reductions in improving visibility in Class I areas potentially affected by Coronado. In particular, SRP asserted that:

ADEQ demonstrated that SO₂ emission reductions, such as those that would occur under the [Coronado] BART Alternative, are very significant in light of the facts that "the SO₂-attributed visibility extinction is generally more than three times the NO_x-attributed visibility extinction" and that, in particular, "the ratios of SO₂-attributed visibility extinction to NO_x-attributed visibility extinction averaged over all Class I areas are 3.7, 4.2 and 4.2 for the 20% best days, the 20% worst days, and all days, respectively."

Response: As noted in footnote 31 of our proposal,⁷⁴ ADEQ’s “Supplemental Analysis of IMPROVE Monitoring Data” is not directly relevant to the State’s demonstration of greater reasonable progress under the two-prong test in 40 CFR 51.308(e)(3), so we did not consider it in evaluating the State’s demonstration. The results of the CAMx modeling establish that, through a combination of controls, emission reductions, atmospheric chemistry, and meteorology, the Coronado BART Alternative will result in greater reasonable progress than BART, as required under 40 CFR 51.308(e)(3).

Comment: SRP stated that, while the Coronado BART Alternative was proposed to be approved under 40 CFR 51.308(e)(3), it is also approvable under 40 CFR 51.308(e)(2)(i)(E) under the weight-of-evidence test. SRP further noted that “[t]he clear weight of evidence test allows states to take into consideration a wide range of factors, visibility metrics, or other relevant considerations in making a better-than-BART determination.”

Response: The EPA acknowledges the comment.

Comment: SRP noted that the EPA described the Interim Strategy as “in effect from December 5, 2017 to December 31, 2025,” and indicated that the Final Strategy “would take effect on January 1, 2026.” The commenter stated that, “the December 31, 2025, date represents a deadline for SRP to install and operate an SCR on Unit 1 or close Unit 1, rather than the conclusion of the effective period for the Interim Strategy” and requested that the EPA clarify that the installation and operation of the SCR on Unit 1 or closure of Unit 1 will occur no later than December 31, 2025, and that the Interim Strategy will be in effect until the installation of SCR on Unit 1 or closure of Unit 1.

⁷⁴ See 82 FR 19338, dated April, 27, 2017; footnote 31.

Response: We agree with the commenter that the installation and operation of the SCR on Unit 1 or closure of Unit 1 must occur no later than December 31, 2025, and that the Interim Strategy will be in effect until the installation of SCR on Unit 1 or closure of Unit 1. We have made this clarification in this final notice.

Comment: SRP noted that the EPA described the SO₂ emission cap as “plant-wide” and “facility-wide.” The commenter recommended that the EPA “clarify that the 1,970 tpy SO₂ emission cap applies to the aggregate annual emissions from Unit 1 and Unit 2 only and does not apply to any emissions from any other sources at the site.” The commenter also noted that, “[i]n the event that Unit 1 shuts down, the SO₂-emission tonnage limit applicable after the shutdown of that unit is 1,080 tons per calendar year.”

Response: We agree with the commenter that the 1,970 tpy SO₂ emission cap applies to the aggregate emissions from Unit 1 and Unit 2, and that, if Unit 1 shuts down, an SO₂ emission cap of 1,080 tpy would apply to Unit 2. We have made this clarification in this final notice.

Comment: SRP asserted that the EPA incorrectly stated that “the Coronado SIP Revision will require equivalent or lower emissions of NO_x, PM and SO₂ for all future years, compared to the emission levels currently allowed under the applicable implementation plan (including both the Arizona Regional Haze SIP and the Arizona Regional Haze FIP).” The commenter noted that the Interim Strategy requires fewer NO_x reductions than the Arizona Regional Haze FIP.

Response: We agree with SRP that the Interim Strategy requires fewer NO_x reductions than the Arizona Regional Haze FIP between December 5, 2017, and December 31, 2025. However, the statement from our proposal quoted by the commenter refers to “the emission

levels *currently* allowed under the applicable implementation plan.”⁷⁵ Because the compliance date for the NO_x emission limits in the Arizona Regional Haze FIP is December 5, 2017, the applicable implementation plan does not currently limit NO_x emissions from Coronado. Thus, as correctly noted in our proposal, the Coronado SIP Revision will require lower emissions of NO_x, PM and SO₂ for all future years, compared to the emission levels currently allowed under the applicable implementation plan.

Comment: SRP included as an attachment to its comments a technical memorandum from Ramboll Environ that evaluated whether the CAMx modeling results for the two-prong test were influenced by numerical noise, based on a spatial and numerical analysis of CAMx model outputs for visibility and its sulfate and nitrate components.⁷⁶ The components reflect the differences in SO₂ and NO_x, respectively, between BART and the Interim Strategy. The differences showed a spatial pattern consistent with realistic gradual variation in the atmosphere, rather than random variation as would be expected from numerical noise. Therefore, the memorandum concluded that the modeled numerical differences represent real visibility improvements and are not just numerical artifacts.

Response: This same analysis was included in the Coronado SIP Revision and evaluated for our proposal. We reaffirm our finding that the analysis supports the conclusion that the two-prong test results indicate actual visibility improvement under the Interim Strategy compared to BART and no degradation relative to the baseline.⁷⁷

Comment: SRP included as an attachment to its comments a second memorandum from Ramboll Environ analyzing (1) whether the meteorology from the year that was used for

⁷⁵ 82 FR 19344 (emphasis added).

⁷⁶ Memorandum from Lynsey Parker and Ralph Morris, Ramboll Environ (September 22, 2016).

⁷⁷ 82 FR 19341.

modeling (2008) was adequately representative of other years and (2) whether, extending the length of the curtailment periods under the Interim Strategy would give additional visibility benefits.

The first of three Ramboll Environ analyses of the representativeness of 2008 was a comparison of 2008 temperatures and precipitation to typical conditions based on more than 100 years of meteorological data. The memorandum noted that temperature affects the oxidizing potential of the atmosphere, which in turn affects the conversion of SO₂ and NO_x emissions into visibility-impairing sulfates and nitrates. Ramboll Environ found that 2008 was somewhat warmer than the average, but that generally the temperature was well within the normal range of variation. The memorandum also noted that precipitation can remove visibility-impairing pollutants from the atmosphere and found that 2008 precipitation was classified as “Near Normal.” Accordingly, Ramboll Environ concluded that 2008 was reasonably representative for purposes of the visibility modeling.

In a second analysis, Ramboll Environ examined visibility-impairing ammonium sulfate and ammonium nitrate concentrations during 2000-2012 as measured at four Class I areas in different compass directions from Coronado. These are shown as time series bar or line graphs for the various pollutants and areas. Ramboll Environ found that the annual averages for 2008 were near the middle of the averages for the individual years from 2000-2012. Monthly averages for 2008 were also consistent with the overall range seen from 2000-2012. Compared to other years, monthly sulfate averages for 2008 tended to be on the high side during March, April, and September, and on the low side in mid-summer and in December through February, but nevertheless consistent with the overall range seen for 2000-2012. Ramboll Environ concluded

that, because the curtailment periods for Interim Strategy options IS3 and IS4⁷⁸ are from November 21 through January 21, overlapping the period for which 2008 tended to have lower sulfate, the modeled visibility improvement for these options would also tend to be lower than would be expected for other years. That is, the actual visibility benefits of these options would generally be expected to be larger than the modeling results indicate. The same conclusion applies to nitrate, for which 2008 monthly averages tend to be on the low side, compared to the averages for 2000-2012 years during the months that include the curtailment periods (November, December, and January).

In its third analysis, Ramboll Environ examined the monthly distribution of the 20% worst visibility days to see how many fell within the November 21 – January 20 curtailment period for 2008 in comparison to 2000-2012. This analysis showed that 2008 had a lower than average number of 20% worst visibility days within this period. Ramboll Environ concluded that, because more of the 20% worst visibility days would fall within the curtailment period in a typical year, the actual visibility benefits of the Interim Strategy would generally be larger than the modeling results indicate.

Ramboll Environ's analysis of the approximately 60-day curtailment period used in Interim Strategy options IS3 and IS4 relied on post-processing of modeling results to assess extending the period by 20, 40, 60, and 80 days. Ramboll Environ presented bar graphs showing the amount by which extending the curtailment period impacted the strengths of the directional results of the two-prong test. For prong 1, the visibility benefit of the Interim Strategy increased very little as the curtailment period was extended. For prong 2, Ramboll Environ stated that even

⁷⁸ The memorandum refers to IS3 and IS4 as BtB3 and BtB4, respectively.

doubling the curtailment period would yield only a 0.002 deciview improvement over the proposed period, which Ramboll Environ viewed as small. Therefore, SRP concluded that extending the curtailment period would have only a small visibility benefit.

Response: We acknowledge the additional analysis provided by SRP, which supports the conclusion that 2008 is a representative year for modeling and that modeling results for this single year are adequate for evaluating the Interim Strategy under the two-prong test. Although the Ramboll Environ analysis primarily addressed IS3 and IS4, the curtailment period for IS2 (October 21-January 31) also includes the months of November through January, so the same conclusion also applies to IS2.

We acknowledge the analysis of extending the curtailment period, but we note that this analysis is not necessary to demonstrate that the Interim Strategy would result in greater reasonable progress than BART. It is sufficient that the modeling demonstrates that each of the Interim Strategy options passes the two-prong test.

IV. Final Action

For the reasons explained in our proposal and in our responses to comments in this document, we have determined that the Coronado SIP Revision will provide for greater reasonable progress toward natural visibility conditions than BART. We have also determined that the Coronado SIP Revision meets all other requirements of the CAA and the EPA's implementing regulations. Therefore, we are approving the Coronado SIP Revision into the Arizona SIP. Because this approval fills the gap in the Arizona Regional Haze SIP left by the EPA's prior partial disapproval with respect to Coronado, we are withdrawing those portions of the Arizona Regional Haze FIP that address BART for Coronado. Additionally, we are taking final action to remove those portions of the Arizona SIP that have either been superseded by

previously-approved revisions to the Arizona SIP or are being superseded by this final approval of the Coronado SIP revision.

V. Environmental Justice Considerations

As explained above, the Coronado SIP Revision will result in reduced emissions of both SO₂ and PM₁₀ compared to the existing Arizona Regional Haze SIP and FIP requirements. While the Coronado SIP Revision will result in fewer NO_x reductions than the Arizona Regional Haze FIP would have required between 2018 and 2025, it will ensure that NO_x emissions remain at or below current levels until 2025, after which it will require NO_x emissions reductions equivalent to or greater than would have been required under the Arizona Regional Haze FIP. Furthermore, Coronado is located in an area that is designated attainment, unclassifiable/attainment, or unclassifiable, or has not yet been designated for each of the current NAAQS. Therefore, the EPA believes that this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income, or indigenous populations.

VI. Incorporation by Reference

In this rule, the EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is finalizing the incorporation by reference of the state permit provisions described in the amendments to 40 CFR part 52 set forth below. The EPA has made, and will continue to make, these documents available through www.regulations.gov and at the EPA Region IX Office (please contact the person identified in the “FOR FURTHER INFORMATION CONTACT” section of this preamble for more information).

Therefore, these materials have been approved by EPA for inclusion in the SIP, have been incorporated by reference by EPA into that plan, are fully federally enforceable under

sections 110 and 113 of the CAA as of the effective date of the final rulemaking of the EPA's approval, and will be incorporated by reference by the Director of the Federal Register in the next update to the SIP compilation.⁷⁹

VII. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review. This rule applies to only a single facility and is therefore not a rule of general applicability.

B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is not an Executive Order 13771 regulatory action because this action approving revisions to a State Implementation Plan and removing the applicable Federal Implementation Plan for Regional Haze applies to only a single facility and is therefore is a *Rule of Particular Applicability* that is exempted under Executive Order 12866.

C. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the PRA. This rule applies to only a single facility. Therefore, its recordkeeping and reporting provisions do not constitute a "collection of information" as defined under 44 U.S.C. 3502(3) and 5 CFR 1320.3(c).

⁷⁹ 62 FR 27968 (May 22, 1997).

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. Firms primarily engaged in the generation, transmission, and/or distribution of electric energy for sale are small if, including affiliates, the total electric output for the preceding fiscal year did not exceed 4 million megawatt hours. The owner of facility affected by this rule, SRP, exceeds this threshold.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments.

F. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on any Indian tribes, on the relationship between the federal government and Indian tribes, or on the distribution of power and responsibilities between the federal government and Indian tribes. Thus, Executive Order 13175 does not apply to this action.

H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards. The EPA is not revising any technical standards or imposing any new technical standards in this action.

K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). The documentation for this decision is contained in section V above.

L. Determination Under Section 307(d)

Pursuant to CAA section 307(d)(1)(B), the EPA has determined that this action is subject to the provisions of section 307(d). Section 307(d) establishes procedural requirements specific to certain rulemaking actions under the CAA. Pursuant to CAA section 307(d)(1)(B), the withdrawal of the provisions of the Arizona Regional Haze FIP that apply to Coronado is subject

to the requirements of CAA section 307(d), as it constitutes a revision to a FIP under CAA section 110(c). Furthermore, CAA section 307(d)(1)(V) provides that the provisions of section 307(d) apply to “such other actions as the Administrator may determine.” The EPA determines that the provisions of 307(d) apply to the EPA’s action on the Coronado SIP Revision.

M. Congressional Review Act (CRA)

This rule is exempt from the CRA because it is a rule of particular applicability. The EPA is not required to submit a rule report regarding this action under section 801 because this is a rule of particular applicability that only applies to a single named facility.

N. Petitions for Judicial Review

Under CAA section 307(b)(1), petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by **[Insert date 60 days after the date of publication in the Federal Register]**. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements (see section 307(b)(2)).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur dioxide, Visibility.

AUTHORITY: 42 U.S.C. 7401 et seq.

Dated: September 28, 2017.

E. Scott Pruitt,

Administrator,
EPA.

For the reasons set forth in the preamble, the EPA amends 40 CFR part 52 as follows:

PART 52--APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 et seq.

Subpart D--Arizona

2. Section 52.120 is amended:

a. In paragraph (d), under the table heading “EPA-Approved Source-Specific Requirements” by adding an entry for “Coronado Generating Station” after the entry for “Cholla Power Plant;”

b. In paragraph (e), under the table heading “Table 1 – EPA-Approved Non-Regulatory and Quasi-Regulatory Measures” by adding an entry for “Coronado Generating Station” after the entry for “Cholla SIP Revision.”

§52.120 Identification of plan.

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(d) * * *

EPA-Approved Source Specific Requirements

Name of source	Order/permit No.	Effective date	EPA approval date	Explanation
Arizona Department of Environmental Quality				

Coronado Generating Station	Permit #64169 (as amended by Significant Revision #63088) Cover Page and Attachment “E”: BART Alternatives	[INSERT DATE 30 DAYS AFTER THE DATE OF PUBLICATION IN THE <u>FEDERAL REGISTER</u>]	[INSERT DATE OF PUBLICATION], [INSERT <i>Federal Register</i> CITATION]	Permit issued by Arizona Department of Environmental Quality. Submitted on December 15, 2016.

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Table 1 – EPA-Approved Non-Regulatory and Quasi-Regulatory Measures

[Excluding certain resolutions and statutes, which are listed in tables 2 and 3, respectively]¹

Name of SIP provision	Applicable geographic or nonattainment area or title/subject	State submittal date	EPA approval date	Explanation
The State of Arizona Air Pollution Control Implementation Plan				
Clean Air Act Section 110(a)(2) State Implementation Plan Elements (Excluding Part D Elements and Plans)				

Arizona State Implementation Plan Revision to the Arizona Regional Haze Plan for the Salt River Project Coronado Generating Station, excluding Appendix B	Source-Specific	December 15, 2016	[INSERT DATE OF PUBLICATION], [INSERT <u>Federal Register</u> CITATION]	BART Alternative for Coronado Generating Station adopted December 14, 2016.

¹ Table 1 is divided into three parts: Clean Air Act Section 110(a)(2) State Implementation Plan Elements (excluding Part D Elements and Plans), Part D Elements and Plans (other than for the Metropolitan Phoenix or Tucson Areas), and Part D Elements and Plans for the Metropolitan Phoenix and Tucson Areas.

* * * * *

3. Section 52.145 is amended by:

- a. Removing and reserving paragraph (e)(1).
- b. Removing paragraphs (e)(2)(iii)-(vi).
- c. Removing and reserving paragraph (f).

[FR Doc. 2017-21604 Filed: 10/6/2017 8:45 am; Publication Date: 10/10/2017]